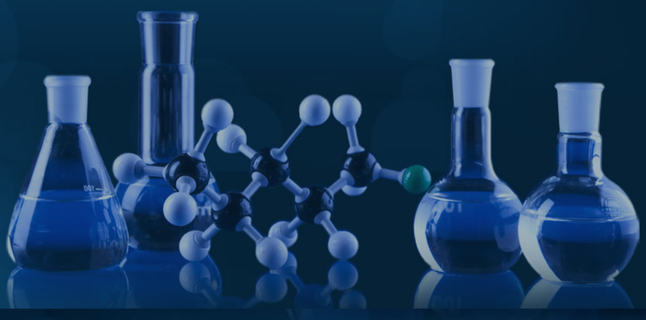

Slow Oxidizer

Slow Oxidizer

Slow oxidation is defined as the condition in which food is burned at a slower-than-optimum rate. 'Oxidation' means to burn. Dr. George Watson, in his 1972 book Nutrition and Your Mind, first described a group of individuals he called slow oxidizers. They had a slightly more alkaline body chemistry, lower carbon dioxide levels in their blood and felt better eating more protein and less fat in their diet. Dr. Watson also found that certain vitamins such as B1, B3, B5, B6 and C were helpful to these individuals. Nutrients such as choline, inositol and copper often made people in this group feel worse.

Dr. Paul Eck expanded our understanding of the oxidation types. During the 1970's, he researched hair mineral analysis and its relation to body chemistry. He was intrigued by Dr. Watson's oxidation concept and began experimenting with ways to identify the oxidation type via hair mineral analysis.

Eventually Dr. Eck settled on a definition of slow oxidation as a calcium/potassium ratio greater than 4:1 and a sodium/magnesium ratio less than 4.17:1. On the hair analysis graph, slow oxidation is indicated when the calcium and magnesium levels are higher than the sodium and potassium levels. For accurate calculation of the mineral ratios, the hair must not be washed at the laboratory.

SLOW OXIDATION AND HEALTH

Dr. Eck noted that the oxidation rate is primarily determined by the activity of the thyroid and adrenal glands. When these are both underactive, the rate of metabolism slows down. Thus, we identify slow oxidation with sluggish adrenal and thyroid gland activity. Sluggish glandular activity accounts for many of the symptoms experienced by slow oxidizers. These include fatigue, depression, constipation, difficulty losing weight, poor circulation, low blood pressure, dry skin and hair, minimal sweating and a tendency to be cold in the winter.

All slow oxidizers do not experience all the symptoms described above. This is because many factors influence body chemistry. The oxidation rate can be much slower in one person compared to another. Also, in some people the adrenal glands are weaker, whereas in others the thyroid is more sluggish. Toxic metals, trace element deficiencies, diet and other factors also affect symptoms. Many other health conditions may be associated with slow oxidation, from arthritis and allergies to osteoporosis.

Carbohydrate intolerance (low blood sugar) is very common among slow oxidizers. Many crave sweets all the time. Slow oxidation helps account for the popularity of sugar-laden soft drinks. Weak adrenal glands produce less-than-optimal amounts of cortisol, a hormone needed to maintain adequate blood sugar levels.

Excessive toxic metals are common in slow oxidizers. Almost all have excessive copper accumulation however, high levels of copper and other toxic metals may not be revealed on the first test. This occurs because one often lacks the energy required to eliminate the metals through the hair. The toxic metals remain locked in the body tissues, where they may cause much harm.

A corrective nutrition program enhances energy production. After several months the toxic metal levels often rise on the hair test as the body begins to eliminate the metals from storage sites in the body tissues. In chronic cases, several years may be needed to eliminate toxic metals.

SLOW OXIDATION AND THE STAGE OF STRESS

A moderate to extreme degree of slow oxidation is associated with an exhaustion stage of stress. The stages of stress were defined by Dr. Hans Selye, M.D. some 50 years ago (The Stress of Life by Hans Selye, MD). In the exhaustion stage, an organism is no longer able to actively fight stress. Instead, it is in a 'holding pattern', doing its best to survive. We also refer to this condition as 'adrenal burnout'.

CORRECTION OF SLOW OXIDATION

Correction of slow oxidation involves at least three aspects.

- The first is diet. The diet for slow oxidizers needs to contain adequate protein, about two or three ounces of protein per meal for adults. The diet is also low in fat and moderate in carbohydrates. Sweets and fruit juices are best avoided. The slow oxidizer often craves sweets due to low adrenal gland activity. As the adrenal glands improve, sweet cravings diminish.
- A second aspect of a corrective program is an individualized supplement program. Slow oxidizers need B vitamins, zinc, manganese, vitamin C and E, adrenal and thyroid glandular substance, a digestive aid and calcium and magnesium. Calcium and magnesium are frequently biounavailable in the slow oxidizer. This is indicated on the hair chart by very high levels of these minerals.
- A third aspect of correction involves lifestyle. Often slow oxidation is brought on by overwork, inadequate rest and sleep and possibly emotional patterns that use up energy. Adequate rest and sleep are essential. Most healing takes place during sleep. Moderate, not excessive exercise is also important. Other lifestyle habits such as regular meals and a relaxed lifestyle may also be essential for correction.

On scientific nutrition programs, most slow oxidizers speed up, but may still remain slow oxidizers. However, their mineral ratios come into better balance, trace element levels rise and toxic metal levels diminish. Carbohydrate tolerance also improves. Sometimes slow oxidizers change to fast oxidizers, but this is not necessary for good health. It is more important to have good mineral ratios, with the oxidation rate neither too fast nor too slow.